REMARKS

The Final Office Action mailed February 4, 2005 and the Advisory Action mailed April 25, 2005, have been received and reviewed. Claims 1 through 44 are currently pending in the application. Claims 1 through 44 stand rejected, but the body of the Office Action does not set forth a basis for the rejection of claims 22 and 23. Applicant has amended claims 1-3, 9, 11, 17, 32, 33, and 35, and respectfully requests reconsideration of the application as amended herein and in light of the remarks presented herein.

35 U.S.C. § 102(b) Anticipation Rejections

Anticipation Rejection Based on U.S. Patent No.6,242,926 to Gardopee et al.

Claims 1 through 15, 17 through 21, 24 through 28, and 30 through 44 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Gardopee et al. (U.S. Patent No. 6,242,926). Applicant respectfully traverses this rejection, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Gardopee discloses a method and apparatus for moving an article relative to and between a pair of distance sensing probes which are spaced apart a known distance D. A distance a between the first probe and a point on the surface of the article nearest to the first probe of the pair is measured. A distance b between the second probe and the surface of the article nearest to the second probe is measured. The thickness t of the article can be calculated from the equation: t=D-(a+b).

Claim 1, as amended herein, recites, "a first linear measuring device including a first movable caliper finger disposed on one side of the plane for measuring a first linear distance from *a common zero point location* to the first surface of the substrate along an axis substantially normal to the first and second surfaces; a second linear measuring device including a second movable caliper finger disposed on an opposing side of the plane for measuring a second linear distance *from the common zero point location* to the second surface of the substrate along the

axis generally normal to the first and second surfaces, the second movable caliper finger being coaxial with the first movable caliper finger, *the common zero point location being a location of the end of the first linear measuring device wherein the end of the first linear measuring device is in axial contact with an end of the second linear measuring device.*" (emphasis added)

Applicant respectfully submits that Gardopee does not disclose each and every element of independent claim 1 as amended herein. More precisely, Gardopee fails to disclose a first caliper finger for measuring from a common zero point location to the first surface of a substrate and a second caliper finger for measuring *from the common zero point location* to a second surface of the substrate. Rather, Gardopee discloses distance sensing probes spaced apart a known distance D, and measuring the distance a between a first probe and a point on the surface of an article nearest to the first probe and the distance b between a second probe and a point on the surface of an article nearest to the second probe. The distances are not measured from a *common* location. Therefore, Applicant respectfully submits that Gardopee does not disclose each and every element of claim 1.

Claims 2-15 are each allowable, among other reasons, as depending from claim 1 which should be allowed.

Claim 2 is additionally allowable because Gardopee fails to disclose terminal contact members for contacting the respective first and second surfaces of the substrate. Rather than probes for contacting a surface, Gardopee discloses probes capable of determining the distance between the probe and a nearby surface, such as capacitive and optical probes. (Col. 3, lines 35-38)

Claim 3 is further allowable because Gardopee fails to disclose first and second linear measuring devices configured to *provide a zero point value corresponding to the common zero point location* in the form of a linear distance for each of the first and second movable caliper fingers for use by the calculation device in calculating the first and second linear distances. Rather, Gardopee discloses that the probes 18, 20 are spaced apart a known distance D and the distance between the probe and a point on the surface of the article nearest to the probe is measured . (Col. 5, lines 1-5.)

Claim 4 is additionally allowable because Gardopee fails to disclose terminal contact members comprising one of smooth-surfaced enlargements, unidirectional rollers and multidirectional roller balls. Rather, Gardopee discloses probes capable of determining the

distance between the probe and a nearby surface, such as capacitive and optical probes. (Col. 3, lines 35-38)

Claim 9 is additionally allowable because Gardopee fails to disclose an apparatus configured to measure the first linear distance and the second linear distance from the common zero point location. Rather, Gardopee discloses probes configured for measuring the distance a between a first probe and a point on the surface of an article nearest to the first probe and the distance b between a second probe and a point on the surface of an article nearest to the second probe.

Claim 13 is further allowable because Gardopee fails to disclose a carrier configured to move the substantially planar substrate continuously between the first and second movable caliper fingers while in contact therewith. The probes of Gardopee determine the distance between the probe and a nearby surface, and do not contact the surface.

Independent claim 17 recites, "at least one complementary set of linear measuring devices is configured to define a common zero point location at a location of mutual contact between contact members of the first and second coaxial, opposing, movable caliper fingers, to provide a corresponding zero point value as a linear distance for each movable caliper finger, and to provide displacement values for each movable caliper finger when displaced away from the common zero point location." Gardopee fails to disclose movable caliper fingers in mutual contact, defining a common zero point location, or providing displacement values for each movable caliper finger when displaced away from the common zero point location. Rather, Gardopee discloses distance sensing probes spaced apart a known distance D, and measuring the distance a between a first probe and a point on the surface of an article nearest to the first probe and the distance b between a second probe and a point on the surface of an article nearest to the second probe. Therefore, Applicant respectfully submits that Gardopee does not disclose each and every element of claim 17.

Claims 18-21, 24-28, and 30-31 are each allowable, among other reasons, as depending from claim 17 which should be allowed.

Claim 18 is additionally allowable because Gardopee fails to disclose a carrier configured to move a substrate either continuously *or discontinuously*.

Claim 21 is further allowable because Gardopee fails to disclose contact members comprising smooth-surfaced enlargements at the terminal ends of the movable caliper fingers, unidirectional rollers or multidirectional roller balls.

Claim 27 is further allowable because Gardopee fails to disclose a carrier configured to move the substantially planar substrate continuously between movable caliper fingers while in contact therewith.

Independent claim 32 recites establishing a common zero point location in or immediately adjacent the plane from which first and second linear distances perpendicular to the plane may be measured; placing the substantially planar substrate parallel to the plane and with *the common zero point location located within the substantially planar substrate*; *measuring the first linear distance from the common zero point location* to the first substantially planar side of the substantially planar substrate in at least one location along the substantially planar substrate; and *measuring the second linear distance from the common zero point location* to the second, opposing, substantially planar side of the substantially planar substrate in the least one location along the substantially planar substrate. Gardopee fails to disclose a method for determining at least one dimensional value of a substantially planer substrate including measuring distances from a common zero point location to each of two opposing sides of a substrate. Rather, Gardopee discloses a method for determining the thickness of an article by measuring a distance a between a first probe and a point on the surface of the article nearest to the first probe of the pair and a distance b between a second probe and the article is measured. The distance sensing probes are spaced apart a known distance D The thickness t of the article is calculated from the equation: t=D-(a+b).

Claims 33 through 44 are each allowable, among other reasons, as depending from claim 32 which should be allowed.

Claim 34 is additionally allowable because Gardopee fails to disclose determining a thickness of the substantially planar substrate by adding measured first and second opposing linear distances from a common zero point location.

Claim 41 is additionally allowable because Gardopee fails to disclose measuring the first and second linear distances by measuring displacements of first and second opposing elements in contact with the opposing sides of the substantially planar substrate. Rather, Gardopee discloses measuring the distance between a probe and the surface of an article.

Claim 42 is additionally allowable because Gardopee fails to disclose establishing the common zero point location as a location of mutual contact of the first and second opposing elements without interposition of the substantially planar substrate therebetween.

Claim 43 is additionally allowable because Gardopee fails to disclose biasing the first and second opposing elements toward mutual contact. The probes of Gardopee are not biased in any direction.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on U.S. Patent No. 6,242,926 to Gardopee et al. in View of U.S. Patent No. 5,883,313 to Ercole et al.

Claims 16 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gardopee et al. (U.S. Patent No. 6,242,926) in view of Ercole et al. (U.S. Patent No. 5,883,313). Applicant respectfully traverses this rejection, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

The 35 U.S.C. § 103(a) obviousness rejections of claims 16 and 29 are improper because, among other reasons, the claims depend from independent claim 1 or independent claim 17, which should each be allowed.

Claims 16 and 29 are additionally allowable because there can be no reasonable expectation of success with the combination of the linear position transducers of Ercole and the measuring apparatus of Gardopee. The probes of Gardopee do not contact the article to be measured, rather measure the distance between the surface of the article and the probe. The linear position transducers of Ercole do not measure the distance between the surface of an article and the linear position transducer.

The outstanding Office Action does not set forth a basis for the rejection of claims 22 and 23, however, claims 22 and 23 are each allowable, among other reasons, as depending from independent claim 17, which should each be allowed.

ENTRY OF AMENDMENTS

The amendments to claims 1-3, 9, 11, 17, 32, 33, and 35 above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application.

CONCLUSION

Claims 1 through 44 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicant's undersigned attorney.

Respectfully submitted,

Kirsten L. Dockstader
Registration No. 54,597
Attorney for Applicant
TRASKBRITT
P.O. Box 2550
Salt Lake City, Utah 84110-2550
Telephone: 801-532-1922

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